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ART. I.—*Monthly Reports on Epidemics and the Sanitary condition of Chicago*, prepared for the Cook County Medical Society at the Meeting in November, 1854. By N. S. DAVIS, M. D., and Prof. in Rush Med. College.

The last report, made by your committee, had reference to the diseases prevalent through the month of August. Not having been able to attend the meeting of the Society on the first Tuesday in October, no report was made for September, and hence the present paper will contain a brief review of two months.

Having in the former reports traced somewhat in detail the progress of cholera and its connection, as far as possible, with the appreciable conditions of the atmosphere, we shall at present occupy very little time or space with that subject. At the close of our last report, the cholera had ceased its ravages as an epidemic, but sporadic cases continued to occur in all sections of the city, causing from two to ten deaths per day. During the first three weeks of September, the weather was moderately cool; and for the most part the atmosphere was dry. During this time the average number of cases and deaths from this disease gradually decreased. This was so much the case, that for several days previous to the 21st, I met with no well marked case of the disease.

On Friday, September 22d, I learned of four deaths from cholera within the compass of two blocks, between Randolph and Lake streets, west of the West Side Market House. These had all been attacked during the evening of the 21st and were either dead or in a state of complete collapse before morning. On inquiring of physicians, I learned that several other cases occurred at the same time, chiefly in the West division of the city. The number of cases and deaths occurring on the 21st and 22nd, was sufficient to indicate a sudden and well marked increase in the prevalence of the disease. A few days later the same increase of cases and deaths was found to exist in the South and North Divisions; and it continued with little or no abatement until the 13th of October. The whole number of deaths during the month of September from all diseases was 560 ; of which 240 were reported to have resulted from cholera. During the first 13 days of October the number of deaths from all diseases was 190, of which 77 were attributed to cholera. During the week following the 13th the attacks became much less frequent, and for some time past I have not met with a single well-marked case. I have stated that during the first three weeks of September the weather was moderately cool and dry, and the prevalence of cholera slowly diminished. On the afternoon and evening of the 21st of the month there was a notable change. The atmosphere became very nearly saturated with moisture and the night warm. This state of the atmosphere continued two weeks. The temperature was at no time very high, neither was there at any time more than a slight sprinkling of rain, yet the proper tests showed constantly a high degree of saturation ; and some days the air was filled with a visible mist or fog. It was during this time that the cholera attacks became again so numerous as to cause considerable uneasiness in the public mind, and several well known citizens became its victims. During the third week in October the weather became cooler, accompanied by one or two copious rains, which for the first time thoroughly saturated the soil with fresh water. Since then the atmosphere has been clear, dry and pleasant, accompanied by a rapid improvement in the public health. The increase of sickness which was noticed during the last part of September

and the first of October, was undoubtedly caused in part by the increased influx of emigrants from Europe and the rapid return of many from other parts of the Union under the impression that the cholera had entirely ceased in the city. It is worthy of note also that the specific character and phenomena of most of the attacks which have occurred during the last period of the prevalence of the cholera, was somewhat different from those that were noticed during the summer. A smaller proportion of them were *rapidly* fatal, and there was manifested a much greater tendency to stop vomiting and purging before complete collapse, and to result in a very low grade of secondary typhoid fever, which it was often extremely difficult to remove. There were many cases also, that presented the copious vomiting, purging, cramps, and rapid prostration of ordinary epidemic cholera; but the matters vomited, instead of presenting the appearance of rice-water, were, throughout, thin as water and of a deep *green* or *yellow* color.

Although such modifications were seen in many of the cases, yet there were some as rapidly fatal as at any previous part of the season. I recollect well the case of an Irishman who had been in the city only a few days. He rose in the morning, eat his breakfast, and went to his work in a marble yard near by.— He shortly after felt sick, returned to his boarding house, and in less than one hour, he was in a state of complete collapse, and before noon life was extinct. I learned, however, that he had had serous diarrhoea during the last part of the night and early morning, but without mentioning it to any one. In one particular the following case may be worthy of recital:

Miss C., a school girl, aged 13 years, large size and fleshy, was attacked with active cholera on the evening of Oct. 10th. I was called to visit her in the night. Found her vomiting and purging frequently, the matter discharged being entirely serous or rice-water. Her eyes were sunken and the skin underneath of a leaden or purple color; the skin on the extremities shriveled and cold; pulse very small and frequent; the voice husky; extreme thirst for cold water; frequent cramps in the extremities; and great restlessness. I directed strong sinapisms of mustard to be applied over the epigastric region, the spine and the extremities; and a

powder consisting of calomel 2 grs. acetate of lead 1 gr., and acetate of morphine $\frac{1}{4}$ gr., to be given *immediately after every paroxysm* of vomiting, and if the vomiting ceased, to be continued every hour until the diarrhoea ceased also. Her drinks were restricted to coffee and cold water given alternately in table-spoonful doses, and small pieces of ice to hold in the mouth. The next morning I found her still with a cold and corrugated skin, sunken eyes, husky voice, rapid and feeble pulse; but the vomiting, purging and cramps had ceased. As she was wakeful and restless, I continued to give her morphine in doses of $\frac{1}{4}$ of a gr. combined with one grain of calomel, every three hours, and spts. nit. dulc., half a tea spoonful between the powders. Up to this time there had been no secretion of urine, and the thirst remained unabated. At evening she had a moderate evacuation of urine, and two small discharges from the bowels consisting of a serous fluid of the color of strong coffee with black flakes floating in it. There was also more reaction, the skin being warmer, the cheeks slightly flushed, but the pulse, thirst, &c., the same as in the morning. I now directed her the following, viz.:

R Sulp. quinine	12 grs.
Pulv. G. camphor,	5 grs.

Mix and divide into five powders, one to be taken every two hours. Beef-tea had been given in small quantities frequently throughout the day, together with some coffee. These were continued. I was in hopes the quinine and camphor would give more force and steadiness to the heart's action, and thereby render the pulse fuller and slower. In this, however, I was disappointed. The next morning the pulse still remained small and quick, at least 150 per minute, the skin around the eyes and on the extremities of a purplish color, but warm; the cheeks deeply flushed and hot; considerable thirst; the tongue coated and dry; slight wandering of mind at times; and great restlessness. She had passed a small amount of urine and one or two discharges from the bowels very similar to that of the day previous. Believing that no healthy capillary circulation or functional action could be established while the pulse continued so rapid and feeble, and the patient presenting the appearance of sinking soon into a most dangerous typhoid con-

dition, I determined to try the effects of a direct and powerful sedative. All the previous remedies were discontinued except the animal broth, and the following, viz.:

R Sat. tinct. veratrum viride,	℥i.
Tinct. opii et camph.	℥i.
Spts. nit. dule.	℥i.

Mixed, was given in doses of a teaspoonful (one fluid drachm) every four hours, and the face and neck sponged over frequently with cold water.

At the end of twenty-four hours, I found the pulse reduced below 90 per minute, and more full; the cheeks were less flushed, and the color of the skin improved. The patient had slept more quietly, during which a slight perspiration appeared on the forehead. She had vomited a little green fluid once or twice, and had discharged from the bowels once, the evacuation being less thin, and of a greener color, instead of black.

I continued the same treatment, only diminishing the dose of the medicine to half a teaspoonful, given at the same intervals of time. During the succeeding twenty-four hours there was no vomiting or intestinal discharges; the pulse became natural in frequency; the thirst ceased; the urinary secretion was free and natural; and the countenance good, with some appetite. From this time the patient took very little medicine of any kind, and rapidly recovered. The point of interest in this case was the extreme rapidity of the pulse, continuing after the evacuations had ceased, and the apparently prompt influence of the veratrum in controlling it, and arresting the development of a severe secondary typhoid fever. Those who have had much to do with the treatment of cholera have not unfrequently met with cases in which the discharges cease before entire collapse or loss of pulse at the wrist, but in which the pulse becomes extremely rapid, small, and feeble, accompanied by just enough re-action to give warmth to the surface over the face and trunk, with remaining coldness and lividity of the extremities, and nearly suppressed secretion of urine.

So far as my observations go, such patients linger from one to six days in a typhoid condition, with occasional vomiting of a

green liquid, and then die ; though a few slowly recover. Regarding the rapidity of the pulse in such cases as depending on extreme exhaustion, I have generally endeavored to support the patients by moderate stimulants and nutritious drinks. But the large proportion of deaths with those who get into the state here described, determined me to use the *veratrum viride* in the foregoing case, for the purpose of directly diminishing the frequency of the heart's action. The result was such, that I shall try it again, if I chance to meet with other cases presenting the same condition of the circulation. In endeavoring to improve our stock of knowledge in regard to the successful treatment of cholera, we shall, doubtless, gain more by studying carefully the varying indication which spring up in the progress of different cases, and the means best calculated to meet those indications, than by the vain search after new remedies which may be applicable to all cases and stages of the disease.

Dysentery.—During the two months embraced in this report, the prevalence of Dysentery in this city has very much exceeded, in the number of attacks, that of Cholera. It has prevailed, more or less, among all classes and ages, but the emigrants, those who have recently commenced their residence here, and the children, have suffered most. As a general rule, the disease has been mild and easily controlled by proper remedies ; but there have not been wanting cases of the most obstinate duration, and others of the most malignant or rapidly fatal character. The great majority of cases that I have met with, have commenced with rigors, followed by fever, pain in the head, loins, and extremities, together with frequent discharges of mucous, more or less mixed with blood, and accompanied by severe griping pains and tenesmus ; agreeing in all respects so fully with the descriptions of the disease given by well known authors, that any details given here would be a waste of valuable time. A few cases have been observed in which the disease manifested distinct periodicity, and readily yielded to the use of Quinine and Opium in anti-periodic doses.

The most dangerous class of cases have been characterized at the beginning, by pretty *copious* and frequent discharges of a

serous fluid, mixed with sufficient dark colored blood to give the whole a dark red appearance. The patients complain of comparatively little pain or tenesmus, but feel a great sense of oppression and distress in the epigastrium, and extreme debility. The general febrile action is feeble, the extremities often being cool; the pulse soft and not more than 90 per minute; the countenance of a leaden or dingy hue and the expression dull; the mouth dry; the voice husky; the respiration feeble, and the mental operations slow. If the disease continues uncontrolled from three to five days, the tongue becomes more dry and covered, especially in the middle and back part, with a brown coat; the upper lip becomes retracted and the teeth covered with sordes; the pulse more frequent and feeble; the mind more dull and disposed to wander; and the discharges continue frequent, considerable in quantity, and consisting of a large proportion of very dark colored blood, and emitting an extremely offensive odor. Generally there are flakes and shreds of Lymph mixed with the discharges. Some of the cases terminate in fatal exhaustion between the end of the first and the middle of the second week. Others terminate still earlier by the supervention of true cholera, or rice-water, discharges with vomiting, and almost immediate collapse. I have seen only three or four of this class of cases. The following case will illustrate both the symptoms and treatment of that form of the disease which we have been describing.

Mr. B., a native of Ireland, aged about 30 years, was admitted into the Mercy Hospital during the second week in October. He had been sick five or six days. His face was of a purplish red color; his tongue covered with a dry, brown coat, upper lip retracted, and teeth covered with dark sordes; mind very dull and inactive; pulse 90 per minute and soft; skin dry and rough; abdomen full and tympanitic; with very frequent discharges from the bowels, consisting almost wholly of dark blood, emitting a very offensive smell, and amounting to very considerable in quantity. The discharges were frequently accompanied by much pain, and an imperfect control over the sphincter of rectum, allowing the blood to escape sometimes involuntarily. Wishing to diminish the quanti-

ty of bloody discharge, I directed for the patient a powder consisting of

R Pulv. Opii,	1 gr.
Pulv. Alum,	4 grs.
Sub. Murias Hyd.,	2 grs.

Mix and give every two hours; and between each dose give two fluid drachms of the Emulsion of Oil of Turpentine and Tinct. Opii.

Each dose of the latter would contain about 15 drops each of the Turpentine and Laudanum. The following morning I found no other change in his symptoms than a diminution of the bloody discharges. But they continued very offensive and dark colored, and the sphincter Ani was so much relaxed as to allow the discharges to occur before the patient could be gotten up or out of bed.

The powders were discontinued, and in their place, I directed a tea-spoonful of the following, viz :

R Nitric Acid,	3i.
Tinct. Opii,	3ii.
Strychnine,	1 gr.
Water,	3ii, mix.

The Emulsion was continued as before, and the patient allowed a liberal supply of animal broth, well seasoned with salt. He was continued steadily on the use of these remedies for three days, during which time the discharges ceased to contain blood, and become fecal, though still much too frequent and liquid. His countenance also improved; the tongue became more moist, and the teeth less covered with sordes; and the mind more active. As the discharges remained quite frequent, though destitute of blood, and much improved in their nature, I directed a pill consisting of nitrate of silver one third of a grain, and opium one grain, to given two hours until the bowels should become quiet. We continued the pills about three days when the evacuation had become so much less frequent that they were continued only three times a day. At the present time there remains still a morbid sensitiveness of the mucous membranes manifested by three or four thin

fecal evacuations every 24 hours. The chief points of interest in this case were, the large quantity of very dark and grumus blood contained in the discharges; the relaxation or loss of power over the sphincter ani; and the apparent beneficial action of strychnine in removing the latter. I have had occasion several times to resort to the strychnine for the same purpose, in the advanced stage of typhoid fever and dysentery, and it has seldom failed to produce good effects. In a considerable number of cases of dysentery, accompanied by an unusual amount of blood in the discharges, together with much prostration, I have found the pulv. alum, in doses of from three to five grains, combined with opium, one of the most efficient astringents we possess. It is less sedative or debilitating than the acetas plumbi, and equally effectual in diminishing the quantity of the discharges.

Continued Fever.—During the last two months I have met with only four cases of that variety of continued fever called *Typhus*; and these were all in the persons of emigrants brought to the Mercy Hospital soon after their arrival in this city. There was nothing peculiar in their symptoms or treatment.

They were received into the same wards with other patients, but no other cases occurred among the inmates.

The ordinary typhoid fever has increased almost in the same ratio with the decrease of cholera and dysentery. Of thirty-two cases, concerning which I kept memoranda, twelve occurred during the month of September and the remaining twenty in October. In this list are not included those cases of typhoid disease following genuine attacks of cholera or cholera morbus. In referring to the class of individuals attacked, I find that nearly all were between the ages of 18 and 45 years; and 21 out of the 32 had been residents of the city between one and six months. Only a small proportion of the whole were emigrants recently from Europe, but more than half of the number were young men from other States, who had commenced their residence here since the first of March last. During the month of September and the first half of October, nearly all the attacks of typhoid fever commenced with general lassitude and a moderate diarrhea, lasting from two to six days, when for one day the discharges would become more

frequent, accompanied by pains in the head, back, and abdomen; a pulse between 90 and 100 per minute; skin dry and moderately hot; the tongue covered with a dirty white coat, most thick along the middle; sometimes the edges red, and the whole mouth deficient in moisture. This would characterize the onset of the disease, or the period when the patient takes to his bed. In some instances the gastric and intestinal irritation at the commencement was more severe, giving rise to both diarrhoea and vomiting. These, however, lasted only one or two days, when generally the gastric irritation subsided, and the diarrhoea consisted of only three or four thin fecal discharges per day. But as the intestinal discharges became less frequent, the general febrile action increased, the pulse becoming quicker and more full, the skin more hot, the face more flushed, the mouth more dry, and the coat in the middle of the tongue, appearing more dry and brown with redder edges, the abdomen rotund and slightly tympanitic, and the mind dull, with slight indications of delirium, especially during the night. The subsequent course of the disease has not differed from ordinary intestinal typhoid fever, as described in the books. During the last half of October the gastric and intestinal symptoms were much less prominent at the commencement of the attack; and in a large proportion of cases, the patients complained, during the first day or two, of rigors and chilliness, with more decided pains in the head, back, and extremities. In some cases, though the rigors did not continue after the second day, yet the fever was distinctly remittent, presenting a well marked exacerbation every afternoon and evening. So distinct were the exacerbations that in three cases full antiperiodic doses of quinine and opium were given, but in every instance it failed to cut short the disease and establish convalescence. Though I have in no case been able to arrest the fever by the use of quinine, yet in several cases which manifested distinct morning remissions, I have given four grains in a tea-spoonful of the emulsion of oil of turpentine and laudanum, at 6 and 9 o'clock A. M., continuing the emulsion without the quinine during the remainder of the 24 hours, and with decided benefit. Most of the cases that have come under my care have been mild and easily conducted to a perfect convalescence. Of those that came

under my care during the first week of their sickness, only one died. In the hospital where many patients are received after the fever has been existing from two to three weeks, three died with the disease, presenting plain evidence of ulcerations in the mucous membrane of the ilium. The one case that terminated fatally after having been subjected to treatment early, was that of a young man who was attacked first with diarrhœa, for which he took some very heating medicine from an eclectic physician.

The medicine checked the diarrhœa very quickly, but it was followed immediately by an increase of fever and pain in the head and abdomen. I found him the following day with all the symptoms of a severe continued fever with intestinal irritation. At the end of a week the fever subsided, the tongue became clean, the fecal evacuations very nearly natural, and all the usual symptoms of entire convalescence. But the patient, instead of gaining strength, continued dull and weak, and a slight tenderness remained over the right iliac region. He continued in this state of apparent convalescence eight or ten days, very slowly improving in appetite and strength, when he was seized with sudden and severe pain in the abdomen, followed by rapid distension and tenderness, with a feeble and very quick pulse, and death ensued in 48 hours. Though no post mortem examination was made, yet there could be very little doubt but perforation of the intestine and consequent peritonitis was the cause of the fatal result. The members of the society are aware that the use of the *veratrum viride* in the treatment of typhoid fever, has attracted considerable attention in certain places during the last two years. I have made it the subject of special attention during the present season, and have found a certain class of cases in which its medicinal effects are very valuable. These cases are such as present, early after the attack, a rapid pulse and hot skin, indicating an unusual grade of irritative excitement in the circulation. The following case will illustrate the class to which I refer, and the mode of prescribing the remedy :

Mr. B., a native of Ireland, aged 35 years, had been in the country, and was there attacked with fever, preceded with lassitude and rigors. He was induced to take freely of Cayenne pep-

per, brandy and quinine. Continuing sick, however, he was, at the end of the first week, sent into the city, and received into the Mercy Hospital. I found him with a deep red flush over the whole face; the eyes suffused; the lips, mouth, and tongue dry, the latter being brown along the middle and red at the edges; the mind wandering; the skin hot; the pulse 120 per minute and moderately firm; the respiration hurried; the bowels quiet; and the urine scanty.

I directed for the patient a powder containing Sub. Murias Hydrag. two grains, Pulv. Doveri and Bi Carb. Soda, each five grains, to be given every four hours, with a tea-spoonful of Spts. Nit. Dulc. between. The surface, especially of the face and upper part of the trunk, were to be sponged over with cold water. This treatment was continued forty-eight hours without any decided alteration of the symptoms. The tongue became more dry and brown, the skin remained hot, and the pulse more than 120 per minute. Owing to the continued rapidity of the circulation, and active grade of febrile excitement, I discontinued the powders and Spts. Nit. Dulc., and gave the following, viz :

R Tinct. Veratrum Viride	-	-	3i
Tinct. Opii et Camph.	-	-	3j
Spts. Nit. Dulc.	-	-	3j mix

and give one teaspoonful every two hours; and allow a small quantity of beef-tea for nourishment. The following morning the pulse was reduced to 80 per minute, the skin was cool and moist, the mind less delirious but inactive, but the surface of the tongue remained dry, and the bowels had moved three times, the discharges being thin and brown. The Veratrum mixture was continued at intervals of once in 6 hours, and a teaspoonful of the emulsion of turpentine and laudanum given between. This was continued for three days, during which the pulse remained below 80 per minute, and the general febrile action seemed entirely overcome. The tongue also became more moist and of a better color, and the discharges from the bowels more healthy. The veratrum was now omitted and the emulsion alone continued two or three days longer, when complete convalescence was established. The rapid subsidence of the fever and the reduction of the pulse exhibited in this

case, I have seen follow the use of the *Veratrum Viride* in almost every instance, in which the fever in its early stage was accompanied by unusual frequency of pulse, without excessive intestinal irritation.

But its beneficial effects have been limited to these cases alone. In those cases manifesting but a moderate frequency of pulse, a depressed state of the organic actions, and general dulness or diminished sensibility, I have derived no benefit from its use. And in all cases of typhoid fever it is necessary to guard against its tendency to disturb the stomach and bowels. To effect the latter purpose, I generally exhibit it in combination with camphorated tincture of opium.

I will mention but one other disease in this report.

Puerperal Fever.—Between the 15th and 25th of September, I met with four cases of well marked puerperal peritonitis.

These cases occurred so near together that I at first feared that it was commencing an epidemic prevalence. But on inquiring of other practitioners, I found no corresponding prevalence of it in their practice, and no other cases have occurred since in my own. I was, during the period named, attending one or two cases of severe erysipelas, and it is possible that a poison might have been communicated to the females, or the occurring of the four cases within a few days of each other, might have been purely accidental. The first case occurred in a female of delicate constitution, and who had manifested strong indications of the "*nursing sore mouth*," during the whole period of gestation. It was her first child, and the labor was rather protracted. She appeared to be doing well, however, until the fourth day after delivery, when she was seized with chills, followed by a hot skin, very rapid pulse, hurried breathing, anxiety, restlessness, and severe pain in the lower part of the abdomen, with acute tenderness to pressure, and a rapidly increasing swelling of the abdomen. At the same time the lochia and the milk were suppressed. She was directed a powder, consisting of *Opium* 2 grs., and *Sub. Murias Hydrarg.*, 4 grs., every two hours, with anodyne fomentations to the abdomen. At the end of 48 hours the progress of the disease was arrested and the symptoms favorable. Wishing to avoid as far as possible

the effects of mercurials, on account of the constitutional delicacy of the patient, and having heard the muriated tinct. of iron spoken of in very high terms as a remedy in this disease, I directed it to be given instead of the powders, in doses of 20 drops, diluted with sweetened water. Its exhibition, however, was quickly followed by gastric irritation, with increased pain in the lower part of the abdomen and great restlessness. She was put upon the use of sedative doses of opium alternated with the tinct. of Digitalis and spts. nit. dulc., and ultimately recovered. The second case occurred after an ordinary labor, but was quickly overcome by a few full doses of opium combined with calomel. The third case occurred the third day after a premature labor, occurring about the fifth month of pregnancy. She was treated with opium and calomel and fomentations, as in the two previous cases, and convalescence was pretty well established about the fifth day after the attack. She continued apparently recovering two or three days, when she was suddenly attacked with cholera, sunk rapidly into collapse, and died in a few hours. The fourth case was that of a lady who had been several times delivered at the full period of gestation, but always with still-born children. This latter result was owing to the fact that her children invariably presented unnaturally. In this, her last confinement, the posterior part of the left *scapula* presented, and was the only part that could be reached with the finger. She was delivered without much difficulty or delay by introducing the hand and bringing down the feet.

She continued to progress very favorably until the commencement of the third day, when she was seized with chills, followed by a hot skin, deeply flushed face, a pulse up to 150 per minute, breathing hurried, countenance anxious, abdomen full, tympanitic and very tender, with constant severe pain in the lower part of the back and abdomen. The lochial discharge was also suppressed. I gave her every two hours a powder, composed of Pulv. Opii 2 grs and calomel 3 grs., with warm hops over the abdomen. After the first 24 hours, the stomach began to reject every form of opiate that was given. Still all the bad symptoms continued; the pulse was very quick, the abdomen very full and tender, and the patient extremely restless. Unable to use opiates, and fearing to

bled. I resolved to try the sedative influence of the veratrum viride. I accordingly directed the following, viz :

R Tinct. Opii et Camph. - - - ʒij

Tinct. Veratrum Viride - - - ʒi mix,

and give one fluid drachm every two hours. This was retained by the stomach, and in 12 hours the patient was more quiet, and the pulse less frequent. The medicine was continued at intervals of three hours, and in 12 hours more, the pulse was below 90 per minute, the face pale, the skin cool and covered with moisture, the abdomen less tender, and the patient tranquil. Fearing too much sedative action, I omitted the veratrum, and directed moderate doses of quinine and camphor. In less than 24 hours, however, the fever, quick pulse, restlessness, and abdominal tenderness began again to increase. She was immediately directed to re-commence the use of the tinct. of veratrum viride and paregoric in the same doses as before, and at intervals of three hours. Its effects were as promptly beneficial as before, and by continuing it in smaller doses and at longer intervals for two or three days, complete convalescence was established, and the patient made a rapid recovery. This is the first and only case of child-bed fever in which I have used the veratrum viride. Whether it will prove a valuable agent for combatting this much dreaded disease, further trials must determine.

ART. II—*Hepatic Abscess.* BY DR. F. R. PAYNE, Marshal, Ill.

The liver is liable to various forms of disease, both in this country and in Europe. But notwithstanding the multiform diseases to which this organ is exposed, and the frequency of their occurrence in every climate, all intelligent practitioners are aware that their discrimination is attended with much difficulty; consequently reliable judges in their treatment are but few. The great precision which recent developments of science has given to our knowledge of many other diseases, is well calculated to stimulate medical men to a more thorough investigation of those which are but imperfectly understood. *Suppurative inflammation* of this organ is not of frequent occurrence in this country. During a

practice of eleven years in the Wabash Valley, I have met with but one case, and the fortunate termination of the disease under the most unfavorable circumstances, together with the unusual amount of matter discharged, has induced me to hope that a brief report will not be uninteresting to the members of this society.

Oct. 18th.—Mrs. M., aged thirty-six years, robust constitution, and mother of seven children. She had been under the charge of another physician for about fifteen days previous to my seeing her, and it seems the Doctor was of the opinion that she was suffering from the effects of a disease which he denominated, "*Fall Fever.*" From the imperfect history of the case, up to this time, which was derived from the patient and friends, it was difficult for me to determine what had been the early character of the disease. But I was induced to believe it had been *bilious remittent fever*, but had now assumed a typhoid type, with much hepatic disturbance. Her pulse was 120, tongue dry, bowels costive, pain in the right hypochondrium. Ordered three alterative portions sub. mur. hyd. to be carried off in eight hours after last powder, with Olei Ricinum and Terebinth. Dover powders after medicine operates and blister over region of the liver.

19th. Not much improvement. Continued treatment.

20th. Found her very restless, pain extends to the right shoulder and down the side. She is very much debilitated, bowels costive. Ordered wine and laxatives.

22d. Hepatic disturbance increasing, liver enlarged. Pulse 110. A remission of fever during the morning. Gave cathartic dose Pilula Hyd. and Quinine, Morphine and sup. Carb. Ferri, during the remission.

24th. Patient better; tongue moist; bowels have been freely moved; has some desire for nourishment. She was visited frequently by Dr. H. R. Payne and myself up to the 12th of Nov. At that time she had pain and tension on the right side, great emaciation, bowels costive, shivering and chilly sensations, tumor large, extends to hypogastric region. Ordered nitro-muriatic acid bath and continued a supporting treatment. At this time I was fully satisfied that my former suspicions were correct, and that the previous inflammation of the liver had terminated in suppuration. I

explained the character of the malady to the patient and her friends, and urged the propriety of an operation as early as practicable.

Nov. 27th, which was about eight weeks from the time the first symptoms made their appearance, Dr. C. L. Duncan and I visited her and found a slight elevation of the cuticle, with œdema and tenderness about $1\frac{1}{2}$ inches from spinous process of the last dorsal vertebra on the right side, into which the lancet was introduced and followed by a copious discharge of pus. The treatment ordered at this time was tonics and stimulants, with an occasional laxative, as the bowels would not perform their function without artificial interference. The pus continued to flow for three weeks, during which time she used iodine internally and externally, in connexion with tonics and stimulants. I would not hesitate to fix the amount of pus discharged at two gallons, but we have no means of ascertaining the exact amount. It has not been my object to give the minutes of treatment in the above case, as there was nothing peculiar in it. The fortunate termination of the disease under such unfavorable circumstances, must be attributed, in a great measure to the *vis medicatrix nature*, or conservative power of the system. Was it not for this power of the system, every intelligent physician is aware that a deep-seated abscess in a vital organ would necessarily prove fatal. The patient now enjoys good health.

ART. III.—*On Snake Bites.* By WILLIAM HANLEY, M.D., of Naperville, Ill.

July 31st, 7 A.M., was called to H. W. J.—ll's, aged 29 years; found him suffering from a severe bite of a rattlesnake, situate on the leg, about an inch above the ankle. The whole limb was swollen as far as the abdomen, and of a purple hue as far as the knee; vomiting a greenish fluid; the surface of the body cold, and bedewed with excessive perspiration; pulse 127, timed by the watch, and respiration very difficult. The wound was inflicted about 3 P.M. on the 30th, whilst walking barefooted in his corn field. He killed the snake, which was a very

large one, and possessed fourteen rattles. I was informed that suggested remedies had been employed of the following nature, viz.: giving large portions of brandy, until symptoms of intoxication became manifest, and applying topically spirits of ammonia, snake weed poultice, honey and salt, and indigo, each separate in the order named, without change in his condition, except for the worse. I at once had the limb washed with warm water, and applied spirits terebinth, saturated with nitrate of potassa, freely to the wound, and the entire surface of the limb, employing at the same time considerable friction with both hands. I gave him thirty drops of the same mixture every half hour, in two tablespoonfuls of cold water, until he had taken four doses. The first was swallowed with great difficulty; the second no easier; the third with scarcely any difficulty; and the last quite natural. Vomiting ceased with the first dose; the purple color of the skin began to assume a rose color in about twenty minutes from the first application; and in one hour the limb was much reduced in size. At 9 A.M. I left him, with very little swelling in the limb, an entire disappearance of the purple color of the skin; heat restored to the surface of the body; respiration easy and natural; pulse 85; perspiration reduced to a slight moisture, instead of a complete drenching, as when I first saw him, and a disposition to sleep.

I called at 3 P.M., and found he had slept two hours, and awoke feeling quite well, except a slight head-ache. I was induced to try the above remedy from the following considerations: terebinth being a styptic of the first class, and a rapidly diffusive stimulus, I looked upon it as suitable for employment in this case, for the purpose of restoring heat, and acting as a styptic to the cutaneous circulation. I combined nitrate potassa with the same, in consequence of its well known antiseptic and vivifying influence on the blood.

The *modus operandi* is that of a diffusible and vivifying stimulus, producing an antiseptic condition of the blood, bringing on rapid contraction of the capillaries, adapting the calibres of vessels to the diminished column of blood, (caused by effusion of its serum between the cuticle and tissue,) restoring a healthy cu-

taneous circulation, and producing a sense of warmth and comfort, instead of coldness and death like exhaustion.

Two other cases of snake bite came under my observation—one August 6th, the other August 10th—the former a young man, aged 18, bit on the arm whilst binding oats; the latter a girl, aged 9 years, bit on the foot whilst playing. Neither of them manifested any other symptom than swelling, and a slight discoloration around the wound. I treated both with the terebinthinate mixture with satisfactory results.

ART. IV.—*Case of Injury of the Brain, and Loss of Substance; with Recovery.* By B. WOODWARD, M.D.

On the evening of the 5th of August last I was called to see a boy 6 years old, who had been kicked by a colt. The injury had occurred some four hours previous to my seeing him. The child was insensible. The whole upper part of the nose was broken down, and the bones driven over under the integuments of the left cheek, under the eye. On cleansing the wound, I found not only the nose broken down, but the skull fractured over the right eye, and under the eye-brow, and a mass of brain (lacerated) as large as a large hickory nut protruding. As soon as efforts were made to replace the bones of the nose, violent vomiting was produced, and more of the brain was forced out. I deemed it best to call council, and Doctor Porter of Prophetstown was called in. On making renewed efforts to replace the bones of the nose, he found the vomiting and consequent protrusion of the brain so great as to cause him to desist; and we concluded to meddle with the nose as little as possible, for fear of still further endangering the life of the child. The nasal passages were cleared, the brain, which had exuded, removed, and the wound dressed.

The next day, the father of the child, not being satisfied with his looks, Doctor Cottle of Albany was sent for. He thought, as we had done, that it was best to meddle with the nose as little as possible, as there seemed already but little chance for the life of the child.

The case was now left in my hands; but I would here acknowledge my obligations to both the medical gentlemen for their valuable advice as to the further management of the case.

For eight days there were more portions of the brain protruded, which I as often removed, and trusted entirely to keeping the head cool, the bowels open with saline purgatives, and a low diet, except that I used the nit. argent. freely to the broken or out surface of the brain. I tried compresses from time to time, in order to prevent the loss of the substance of the brain; but the least pressure would produce convulsions. I would only state further, that in due time the wounds all healed, and the boy recovered.

This case has taught me never to despair as long as there is life.

SELECTIONS.

On the External Application of Belladonna in Delirium Tremens. By Dr. GRIEVE, Physician to the Dumfries and Galloway Infirmary.

Reflecting upon the contracted state of the pupil in the second or developed stage of delirium tremens, Dr. Blake imagined that "by dilating the pupil we might so influence the disturbed visual sense as to dispel, or at least modify, those 'false creations proceeding from a heat-oppressed brain' which characterize this disease, and thus conduce to the comfort and tranquillity of the patient;" and one case is related in which this plan was adopted with apparent benefit. In support of his idea, Dr. Grieve reminds us that the late Dr. Graves proposed the use of belladonna in such cases of fever as were attended with cerebral disease, and contraction of the pupil.

CASE.—On the 25th of March last I was called to attend D.W., aged 49, a man naturally of a robust constitution, but who, of late years, had been much given to intemperance. On inquiry I found that he had been more or less intoxicated for the last three weeks, that he had slept none for several nights in succession, and that the present was his fourth attack of delirium tremens. I found him suffering under great nervous excitement and commotion; laboring under all sorts of optical delusions; fancying that lizards, centipedes, and other entomological horrors were crawling in and around his bed, from which he was convulsively making vain efforts to dislodge them. His pulse was upwards of 120, soft and compressible; his whole body was bedewed with a cold clammy perspiration, and the pupils of both eyes were much contracted. Having obtained some extract of belladonna, I rubbed a little on the eyelids, and remained by his bedside to mark the result. My expectations were soon more than realized, for no sooner was the physiological effect of the drug manifested in the dilated state of the pupils, than the spectral illusions gradually became less and less distinct, the nervous tremors and excitement began to subside, and he soon became comparatively quiescent and tranquil. Soon after this I had the satisfaction to see him fall

into the much coveted sleep. Thus I left him ; and on revisiting him in a few hours I found that he had slept for two hours ; his pupils were then still much dilated ; his pulse was below 100, firmer, fuller, and of better character ; and altogether his condition, mental and corporeal, was much ameliorated. On interrogating him about his recent hallucinations, he replied, " They were all stuff and nonsense ; I see no more of them."

From the *Lancet*

On the Nature, Cause, and Treatment of Cholera. By DAVID LEWIS, M. D., Licentiate of the Royal College of Physicians, London ; Physician to the Royal General Dispensary, Aldersgate-street.

In the midst of so many specifics for the cure of cholera, and and such numerous theories to explain its cause, I venture to submit the following observations to notice with considerable diffidence. But I am emboldened to speak plainly, because to the best of my belief, I speak the truth—a belief founded upon impartial observation, and confirmed by a lengthened experience. I have treated many hundreds of cases of diarrhœa according to the methods generally reported to succeed, and the result of my experience is, that two only of the various plans avail to cure—viz : the employment of alkalis, or the stronger acids. But these plans appear to fail so seldom, that I now invariably prescribe them with perfect confidence. But how can remedies, so opposed in all their characters, produce, when administered, similar effects ? What is their action ?

I believe the almost universal cause of diarrhœa to be an excess of acidity in the stomach and intestines, and I believe that alkalis act by neutralizing, and the mineral acids by destroying, this morbid condition. That diarrhœa is so generally caused by the presence of a morbid material, of an acid character, I think is proved by the following facts :—A gentleman of high standing in society partook heartily of some cherry-pie for supper ; he was attacked with diarrhœa in the night, and died of cholera next day. Another gentleman being in delicate health, drank two glasses of champagne at dinner ; he was attacked with diarrhœa in the night, and died of cholera in nine hours. Another man drank a quart of sour beer, was soon attacked with diarrhœa, and died of cholera in twelve hours.

Now I extend this theory to the cause of cholera, and employ either of the above means for its cure, and the uniform success of my treatment strengthens my confidence in the strength of my theory. I believe, then, the cause of cholera to be some material

of an acid nature, or possessing acid properties, and that by virtue of this character, it acts so as to produce cholera, and destroy life. This acid can be neutralized by alkalies, or destroyed by stronger acids, even as uric acid can be neutralized by alkalies, or broken up by nitric acid. This theory I believe to be true, the facts upon which it is founded I know to be incontrovertible, and with regard to both, I would say, in the words of Horace, to those who hesitate to believe,

“Si quid novisti rectius istis,
Candidus imperti ; si non, his utere mecum.”

The following list includes the principal modes of treatment hitherto recommended :

Calomel, in large doses, and in smaller and frequent doses; calomel with opium; opium with large doses; alcoholic liquids; camphor and musk; acetate of lead; sulphate of copper; vegetable astringents; quinine; arsenic; iron; the saline plan, as recommended by Dr. Stevens; the tartarized-anatomy plan, as recommended by Dr. Billing; emetics; the free administration of cold water and ice; the cold bath; the application of the wet sheet; injunction of saline or other fluids into the veins; bleeding; electricity.

Calomel, according to my experience, both in large and small doses, has been totally worthless. Before the collapsed state other remedies are more efficient in arresting the progress of the disease, and in the collapsed state, when the process of absorption has ceased, calomel may be given in spoonfuls without any effect. I look upon the treatment of cholera in the early stages by calomel as only tampering with human life, whilst yet the disease can be arrested to a certainty by other means. Practitioners examine the alvine evacuations, and finding deficiency of bile, immediately throw in calomel, until the secretion of the liver is established, forgetting that the biliary secretion is dependendent on the general state of health, and that the absence of bile is the consequence, and not the cause, of the disease. Calomel at the onset acts as a purgative, and relieves the stomach and bowels from any irritating matter which might tend to aggravate the diarrhoea; beyond that point it has no effect whatever on the disease. In London, calomel, given as a specific in all cases of diarrhoea, to the ill-fed and badly clothed, and those residing in pestiferous localities, be a poison as destructive as the cholera itself. In the country its effects are not so deleterious because the people are stronger and better fed. A medical practitioner at Shoreditch told me that he had given calomel “until he was sick of it,” without any perceptible effect. Children and young people are not so easily killed by calomel, as the more advanced in age; nevertheless there is no

reason to persevere in such a mode of treatment when there is no necessity for it.

Calomel and opium may be applicable in some cases in the early stages, but when the disease is bordering on the eclipsed state, the remedy is useless.

Opium will allay the irritation of the bowels after they have been cleared by an antacid aperient draught.

Stimulants are serviceable according to circumstances; but there is no dependence to be placed on them as specifics in the disease, with the exception of ammonia.

The acetate of lead, the sulphate of copper, &c., are poisons, and totally useless in the cure of cholera. The same remark is applicable to quinine, iron, and arsenic.

The saline plan, as recommended by Dr. Stevens, is nothing more than an indirect application of a principle to destroy the acid products of the stomach, which can only be done by either alkaline or acid remedies.

I have seen the saline treatment tried in a favorable case without any effect. The young lady died in twelve hours.

Emetics act on the principle of clearing the *primæ viæ*; there is nothing in the plan beyond relieving the contents of the stomach, which might as well be done by an aperient draught.

The free administration of cold water and cold baths do more harm than good in nine cases out of ten. In the state of collapse, when the thirst is great, cold water may be given, but I have rarely seen any permanent good effects arise from it.

The injection of saline and other fluids into the veins only answers the purpose of those who aim at notoriety at any price. Bleeding is worse than useless.

Electricity has no influence over the disease. The use that was trumpeted in all the newspapers as having occurred at the Free Hospital I happened to witness. There was no collapse, nor any urgent symptom requiring a peculiar mode of treatment.

In September, 1849, the Cholera Committee of the Royal College of Physicians sent a list of questions to the members. One of them was the following: "Does it accord with your experience that cholera, in the stage of 'serous' or watery diarrhoea, can with facility be checked? What means have you found most effectual in attaining this end?"

I have found no difficulty in arresting the serous or watery diarrhoea by either of the following plans of treatment. In the first place I assume that the disease is dependent on acidities in the stomach, and treat it accordingly. According to the first method, a powder, containing a scruple of rhubarb, and the same quantity of the carbonate of magnesia, is invariably given by me before an attempt is made to arrest the diarrhoea. Without the above pur-

gative I found I could not depend on the astringent mixture. I have been obliged to repeat the rhubarb and magnesia more than once in excessive purging before the diarrhoea could be arrested. Instead of hurrying the diarrhoea into cholera, as has been imagined, it is the only certain method of arresting the disease, since it clears the stomach and bowels from the morbid matter. After the powder has passed through the bowels I give the following mixture:—Powdered (prepared) chalk, two drachms and a half; sesquicarbonate of ammonia, sixteen grains; tincture of opium, half a drachm; compound tincture cardamons, three drachms; cinnamon water, an ounce and a half; water, four ounces. Mix. Two table-spoonfuls after every motion.

It is important to give a dose of the mixture after every motion, otherwise the objects of arresting the diarrhoea by neutralizing acidities in the *primæ viæ*, and quieting the bowels, will not succeed in equal ratio by giving the mixture every two or three hours. At the Islington Dispensary there were in 1849 *nine hundred registered cases of diarrhoea and incipient cholera*, which were all treated on the above plan, without a *single death*. Not a grain of calomel was given. Within the last three months three thousand cases have been treated on the same principle at the Royal General Dispensary, without *one* failure. The success of this plan has been such that I am perfectly satisfied with it; and I have no hesitation in saying, that if the diarrhoea be treated as above, by antacids and astringents, or by mineral acids, there would be but few cases of death from cholera.

The second method of treatment is by the employment of the stronger acids in moderate doses. These, I believe, act by at once destroying the morbid material, and thus produce the same results as alkalis, which neutralize it; for this purpose two drachms of diluted sulphuric acid to six ounces of water, for a mixture, of which two teaspoonfuls to be given to children after every motion, or two teaspoonfuls in the same manner to adults, seldom fail of success.

Finally, I look upon the case of cholera as a poison of an acid character, or capable of generating acids in the stomach, acting solely on the mucous membrane of the stomach and bowels, and if neutralized by carbon and carbonates, or destroyed by mineral acids, it will be rendered inert, just the same as any other poison by its antidote.

Keeping this theory in view, no one need be at a loss to treat cholera on a specific principle.

From the Lancet.]

A New Theory of Animal Heat.

At a late meeting of the Physiological Society of London, Dr.

Winn read a paper on "The Elasticity of Arteries considered as a Cause of Animal Heat," and presented a series of experiments made by him with a view of proving the theory.

He states that about seventeen years ago, whilst experimenting with the caoutchouc, he was struck with the property which that substance possessed of evolving heat when suddenly elongated, and was led to infer the probability of other bodies being similarly endowed. The elastic coat of arteries, especially, appeared to be one of the substances likely to exhibit the califactory principle; and in the event of this being the case, it would not be unreasonable to infer that the incessant contractions and dilatations of the arteries during life must form an efficient cause of animal heat.

The following experiments, made with portions of the aorta of a bullock, somewhat verify the conjecture, and are, at any rate, worthy of notice:

Having cut off a circular portion of the descending aorta, an inch in length, he laid it open, and removed its external and internal covering. He then pulled it to and fro, with a continuous jerking motion, (in imitation of the systole and diastole of the heart,) for one minute. He then placed it in the bulb of a thermometer, and found that the mercury had risen *two degrees*. To be certain that the increased heat did not arise from any source, he took the precaution of wrapping his finger with a double fold of flannel, in order to prevent a communication of heat from the body. He also covered his mouth with a handkerchief, to guard against the warm breath affecting the experiment. There was no fire in the room, the temperature being 36° .

The principal difficulty in this investigation appears to be the moisture of the artery, which, by its evaporation, had a tendency to carry off a portion of the heat. By carefully drying it with a cloth, however, this impediment was partially removed.

His attention was often arrested during the experiment by other mechanical analogies between the elastic coat of arteries and caoutchouc. They both would bear elongation to twice their length, and would return to their usual dimensions with considerable force and the same snapping sound.

From the preceding observations, Dr. Winn concluded that the generation of animal heat could be satisfactorily explained. Physiologists had proved that a certain portion of animal heat was the result of chemical changes in the blood. Yet they confessed that a residuum of heat could not be thus accounted for, and Dr. Winn proposes to refer this residuum to the mechanical action of the arteries. Although difficult to measure the exact amount given during each arterial beat; yet, if the development of only a small quantity was admitted, it necessarily followed, from the in-

cessant action of the arteries, that the body, unless cooled by the functions of the skin and lungs, would soon become preternaturally hot.

Dr. Winn presents the following physiological and pathological facts as corroborative of this theory:

1st. The minute distribution of the arteries to every part of the system, thus ensuring an equal distribution of heat. 2d. The *rigidity* of the arterial system, in old age, as being the probable cause of the diminution of animal heat. 3d. The increased warmth of the body after exercise seemed to be explicable upon the principle of the increased force of the arteries. 4th. When there existed any arterial excitement, and especially if the functions of the lungs (or skin) were at fault, the heat of the body would be greatly increased. 5th. Medicines which reduced the force of the heart and arteries diminished animal heat. 6th. The heat of local inflammations, when there was no constitutional disturbance, could only be accounted for in this way, as the arteries in the neighbourhood of the disease would be throbbing violently, whereas the capillaries, which are supposed to play so important a part in the chemical theory, are generally considered to have their action impeded.

On Constipation. By PROFESSOR TROUSSEAU.

Constipation should be defined, a difficulty in the execution of the fecal matters, independent of any organic lesion. We should not rank among the constipated those in whom defecation is impeded by a tumor or hernia, or invagination, or other mechanical obstacle. Simple constipation is nothing more than absence of alvine evacuations.

Such a condition may depend on many causes. First, there is a sort of physiological constipation, connected with the constitution of the patient; an individual eats but little, and is endowed with great powers of assimilation. The quantity of excrementitious matters, in such a case, are insufficient to stimulate the intestine. These matters are accordingly retained until they accumulate, and their retention produces uneasiness. There are others, however, who eat largely and assimilate no better than their neighbors, whose intestines are consequently filled with fecal matters, and still there is no regularity in the dejections. Such individuals suffer from continual malaise; they are in a state of constant discomfort; the want of proper alvine evacuations causes them real suffering.

Defecation, the last stage of digestion, is one of the most complex functions of the economy, and is deranged by a multitude of circumstances. The causes of constipation are numerous, there-

fore, but the most important are intestine inertia, and the faulty secretion of certain glands. Different secretions predominate in different individuals. One perspires freely, and urinates but little, and secretes but little saliva. The habit of another is the reverse of this; the secreting functions are complimentary, as it were, to one another. It is probable that the liver and pancreas also obey this law, and that they are affected by the excessive action of the other glands. However hypothetical this proposition may appear, it is as admissible as many others which are received in medicine. It is as rational to suspect the liver and pancreas, when there is a want of lubrication of the bowels, as to suspect the kidneys when there is some derangement of the urine.

Among the causes of constipation, we must examine particularly into the influence of diet, of habit, of senile debility, of diseases foreign to the intestines, and of the abuse of purgatives.

As we have already observed, some individuals eat so little, that the unassimilable matters are insufficient to furnish regular dejections. There are some kinds of food which cause the same result; which are digested with such facility that the fecal residue amounts to nothing. Rice, for example, disappears almost entirely in digestion, and it is this property which renders it such an appropriate article of nutriment in cases of diarrhoea. Vegetable diet is the least nutritious, and produces most copious stools. To be convinced of this fact, it is only necessary to compare the dejections of herbivorous and carnivorous animals.

To a certain point, it may be said, that we evacuate the bowels when we wish to do so, only the will must be exercised. If we surmount this inclination to perform this function, it subsides, and may not return for many days. In this way a kind of constipation is produced, which is not the least obstinate or the easiest to cure. It is in this way that so many women, who are prevented from obeying the calls of nature by foolish scruples, and men of letters, who are absent-minded or pre-occupied, become obstinately constipated.

Purgatives, pills, and powders, irritant enemata, and even injections of cold water, and evacuants of all sorts, even when they do not induce a plegmasia of the intestinal canal, deprive it of its normal irritability; it becomes insensible to the simple stimulation which once sufficed to produce the evacuation of the fecal matters. As tobacco, after provoking an abundant secretion of mucus or saliva by a surexcitation of the glands of the nose and mouth, enfeebles in reality the natural secretion, which diminishes notably when the stimulus is withdrawn, so habitual enemata prevent the intestine from acting by itself, by lowering its excitability. This cause of constipation is very frequent in fashionable women, who early acquire the habit of relieving the bowels by an

enema in order to feel unembarrassed during the day. They soon lose the habit of evacuating the bowels naturally, and are forced to have recourse to other remedies of still greater energy.

Child-birth, certain uterine displacements, fissures of the anus, and hemorrhoids, render defecation very painful. Patients in these conditions put off the moment of evacuating the bowels, and induce a secondary constipation, which does not always cease when the cause which produced it is removed.

After several labors, sometimes after one only, the anterior abdominal wall becomes so flaccid and relaxed that it no longer contracts; the intestines are thus deprived of a powerful auxiliary and lose their tonicity.

Age, which impairs all the faculties and all the organic functions, does not spare the intestinal apparatus. Defecation is ill performed in the aged, like digestion and micturition, and retention of the feces supervenes, without organic disease of the rectum, as retention of urine takes place without organic alteration of the bladder. The intestine undergoes a sort of senile paralysis. It no longer contracts on the excrementitious bolus; it is powerless to expel it. Enormous agglomerations of feces are formed, and dilatations are made above the sphincter ani, which sometimes give rise to grave complications in the operation of lithotomy.

Constipation is a serious disease, and deserves great attention; for even supposing that it is not dangerous in itself, it always complicates the slightest ailment, and frequently lays the foundation of an hypochondria, which involves life in numberless disorders.

The treatment should, above all, be directed to the removal of causes. It must not be thought that constipation is cured when an evacuation is procured; this would be as false as to imagine that a person is cured of wakefulness when he obtains sleep by opiates. We should seek not only to obtain relief for the moment, but regularity in the future. Constipation is not to be cured by Seidlitz powders or other purgatives, which, in the end, only increase it.

In the first place, it is necessary to regulate the function. We should do everything to subject it to the empire of the will. We know how great is the power of habit over organic functions. When once accustomed to operate in a certain way, at certain hours, they have a strong tendency to continue to act thus. The habit of going to the privy is like the habit of urinating at certain periods, the habit of shaving, and of washing the face. When once these habits are established, they cannot be dispensed with. A constipated person should visit the water-closet at a convenient hour; he should remain some time, concentrating all his atten-

tion, all his will, all his contractile powers, on the act in question; he should make generous and energetic efforts to accomplish it. Whatever the result, he should return at the same hour on the morrow, and if, in the interval, a desire to go to stool is felt, it should be resisted, and the closet should be visited only at the hour chosen.

The diet should be altered. Instead of the abstemious diet often adopted by patients, they should be ordered abundant and nutritious food, of a kind which will at the same time promote digestion, and leave a voluminous residue, which will force the intestine to disencumber itself. This disease, we have said, causes numerous disorders. Constipated persons always have oppression of the stomach and head-ache, for which they are ordered a light diet, white meats in small quantity, little wine, &c. This is an error. They should be desired to eat largely of roast meats. They should be compelled to eat, and reminded that, according to the English expression, one leg of mutton follows another.

But sometimes it is necessary to assist the will by an adjutant, to facilitate an act, the habit of which is lost, as it were. We must be aware of purgatives, but yet some medicine is necessary to assist defecation. Belladonna is this remedy *par excellence*. It does not purge; it only facilitates alvine evacuation. To what does it owe this property? It is difficult to say. Perhaps, as opium excites the cutaneous secretion, and digitalis that of the urine so belladonna may influence the liver, pancreas, or other glands opening on the intestinal tract. What is certain, however, is, that the fifth of a grain of belladonna almost always procures several alvine evacuations. The dose may be increased to one grain; but as soon as the habit of defecation is restored, the dose of belladonna must be diminished, and gradually abandoned.

Suppositories are much used, and commonly succeed well. Country people employ the middle stock of the cabbage; physicians make them of hardened honey or cocoa.

Lastly, if constipation is connected with flaccidity of abdominal walls, we must have recourse to a tight abdominal bandage, which will confine the intestines normally, and enable them to contract

From the Lancet.

Gangrene of the Lung successfully treated by Inhalations of Terebinthinate Vapors.

Dr. Skoda has published, in the Zeitschrift, &c. of Vienna, several cases of gangrene of the lung, in which the symptoms gave way by the use of terebinthinate vapors and the administration of quinine. In the first case, the cure was effected in six

weeks upon a servant, with whom the gangrene had attacked the upper lobe on the right side. An inn keeper, of middle age, was equally benefited by the same means, but the cure took a longer time and a stay in the country. He also took one grain of quinine every second hour. The treatment was not properly carried out in the third case; and the fourth, that of a journeyman butcher, of a robust constitution, is still pending. The latter had, however, so far recovered, after using the inhalations, and also taking Fowler's solution, that he could go into the country, though there was still some uneasiness in the left scapular region. The inhalations are made by pouring oil of turpentine on boiling water, the inspirations being repeated every second hour, and carried on for fifteen minutes.

Apoplexy.—Dr. Stone, of New Orleans, publishes some rambling remarks upon this and kindred diseases, in the Medical News of that city, in which there are some valuable practical ideas. He says there has been an unusual number of deaths during the past year, from nervous diseases; such as apoplexy, epilepsy, paralysis tetanus, convulsions in children, &c. He thinks an epidemic influence of a peculiar diathesis must prevail, to account for the prevalence of these, as of other diseases. A state of nervous debility or exhaustion, he considers the prominent feature, and that the fluids play a secondary part, whether considered in quantity or distribution. As in other cases which occasionally become epidemic, all the local and exciting causes that are known, may fail to produce them at other times. Apoplexy he considers a nervous disease, and refers to the erroneous notice so prevalent, that there is an undue rush of blood to the brain, which, being encased in the unyielding skull, cannot contain more at one time than another. If there be an effusion of blood or serum, it must be at the expense of the circulating fluids. The interrupted respiration in apoplexy checks the return of venous blood from the brain, and causes a proportional exclusion of arterial blood, and thus the effect may be mistaken for the cause. Persons with large heads and short necks are not on this account more prone to brain disease, except as their propensities and habits of life lead to it, the nervous system being brought to such a state of exhaustion as to overtax its energies to manage an overloaded stomach. Persons with small heads and long necks, find their nervous systems give way in some other parts before the apoplectic state is brought about. When this is not the case, they have apoplexy like others. Excessive indulgences do not show externally in such subjects, but tell upon the brain with equal certainty as in those of plethoric habits.

He deems blood-letting an improper remedy, although temporary benefit may be derived from it in cases of great plethora. A peculiar state of the stomach, independent of indigestible food, exercises a depressing influence on the brain, which blood-letting does not relieve. Cathartics which act without exciting the secretions afford little relief, but mercurial purgatives seldom fail, being aided by small doses of saline laxatives. He makes less account of emetics than one would be led to expect from a knowledge of his pathology; and less than we are disposed to do, from experience in the treatment of such cases. Vomiting, however produced, we have found the most efficient of all remedies in these diseases, whether in adults or children. Titillation of the throat with a feather will often excite, emesis and afford prompt relief, when it is impossible to administer remedies of any kind. He advises croton oil for the convenience of exhibition, and stimulating injection, and carbonate of ammonia as a stimulant and thinks the rectum absorbs as readily in such cases as if nothing was the matter. Dr. S. believes that all functional disorders of the nervous system are disposed to become periodic, and tend to a favorable issue if interrupted respiration, and engorgements of the lungs and brain can be warded off; but it must be borne in mind that his observations are made in New Orleans, where periodicity is the prominent characteristic of diseased conditions.

Preparations of Iron.—Donavan's formula is, pure sulphate of iron, one drachm; magnesia, ten grains; purified sugar, one ounce; rose or cinnamon water, eight ounces; mix. This is a scientific prescription; and if the iron be free from oxide, the green color is preserved for eight or ten days. The magnesia neutralizes the sulphuric acid, and converts the sulphate into a protoxide. The sugar prevents decomposition, and it may be flavored with mint or peppermint water. In the hysterical female, infusion of valerian adds to its value; and if there be great sense of exhaustion, ammonia in combination is most beneficial. In occasional constipation, caused by the loss of tone, the sulphate of zinc, with small doses of sulphate of strychnia, relieves. In severe chlorosis, the crystallized citric acid aids the iron mixture. If there be a periodical neuralgia, the most effective form is the precipitate or carbonate of iron. In severe cases of cholera and anæmic headache, Fowler's solution of arsenic was combined with Donovan's mixture, and in fourteen days both diseases were permanently cured.—*London Lancet.*

BOOK NOTICES.

Transactions of the Illinois State Medical Society for 1854.
Chicago: J. F. BALLANTYNE, Printer.

This is the title of a volume of 112 pages, printed in very good style, and containing the proceedings of the Illinois State Medical Society, held in June last, together with the Annual Address of the President, Prof. Brainard; a paper on the treatment of deformities of the lower extremities, by Dr. E. S. Cooper; the Prize Essay on the difference between Stimulants and Tonics, by Dr. H. Parker, of Chicago; and the list of Members of the Society. The proceedings of the Annual Meeting, and the Address on the Treatment of Poisoned Wounds, by Prof. D. Brainard, have already been published in former numbers of this Journal. The paper of Dr. Cooper occupies sixteen pages of the volume, and bears the following title, viz.: "Walking rendered the Primary Element in the Cure of Deformities of the Lower Extremities; its early Adaptation to White Swelling and Coxalgia, with Apparatus for carrying out the designs of the same."

In reference to the construction and application of instruments or machines to aid in the removal of deformities, Dr. Cooper gives the following rules, viz.:

"1st. They should press equally upon the largest possible amount of surface over which they may be applied.

2d. To change the points of pressure, whenever required, to favor a tender part, without disturbance to the treatment.

3d. To cause no material interruption to the circulation of the blood.

4th. To permit the free exercise of the limb when not prevented by other causes.

5th. To adapt themselves consistently to the changes of the limb during the process of cure.

6th. In the lower extremities, to facilitate walking while the cure is in progress, and, in most instances, render it the active agent in removing the deformity."

In attempting to apply these rules practically, Dr. Cooper treats more particularly of "club-foot," false ankylosis of the *knee* joint, and scrofulous disease both of the knee and hip. In reference to the treatment of all these diseases the author's views are somewhat novel, and worthy of a careful perusal. But we could not give a fair representation of them without quoting his paper entire, or writing one of our own of nearly equal length. Hence those who desire further knowledge on the subject must refer directly to the paper in the *Transactions*.

The next and last paper contained in the volume before us is the Prize Essay on Stimulants and Tonics, by Henry Parker, M.D., of Chicago. It occupies 54 pages, and is written in good style. The author founds his essay on the following distinct propositions, viz :

"1st. That all living organized matter is endowed with certain inherent elementary properties, conditions or forces, necessary and essential for the production of vital phenomena.

2nd. That the elementary forces of all organized structures, are in no way derived from any connection with the nervous system, but are distinct, inherent and peculiar.

3rd. That the elementary properties and functions of the animal tissues are susceptible to various influences and changes through the medium and quality of the blood.

4th. That a first class of medicines, called stimulants, of which alcohol is the type, manifest a primary and specific action upon the brain and nerves, or nerve centres, which they influence. Their action is transitory, exalting nerve-force. That coincident with their action upon these structures, they exert a direct and deleterious influence upon the component elements of the blood and tissues, with the ultimate effect of lowering the elementary vital properties of the body—tonicity and susceptibility.

5th. That a second class of medicines, called tonics, act while in the blood, improving its quality and composition, and thereby the tonicity and firmness of the general system. That their action is slow and permanent—exalting vital force."

In illustrating the first three propositions, Dr. Parker enters upon a true physiological discussion concerning the elementary

properties and functions of organized and living matter, and their capability of being acted on or modified by medicinal agents. This seemed to constitute a necessary introduction to the main subjects embraced in the fourth and fifth propositions. For it is evident that there can be no clear conception of the *modus operandi*, of a medical agent, without a previous definite knowledge of all those properties and functions of the living structures which are susceptible of being acted upon or modified.

To sustain his *fourth* proposition the author introduces several interesting experiments with alcoholic drinks, camphor and carbonate of ammonia, together with a summary of the opinions of Percy, Prout, Liebig, Carpenter, Pereira, and Duchek.

From all his investigations, he deduced the following general conclusions concerning the action of alcoholic stimulants, viz :

6th. That the popular belief, that the action of alcoholic stimulants is confined to the brain and nervous system alone, simply inducing mental exhilaration, and a temporary exaltation of nervous power, is not true; but that coincident with their action upon these structures, they exert in a variable degree, a direct and deleterious influence upon the component elements of the blood and tissues, with the ultimate effect of lowering the elementary vital properties of the body, tonicity and susceptibility.

This they accomplish in the following manner :

1st. By their great affinity for, and absorption of the oxygen of the blood, thereby interfering with its agency in the formation of plastic material, and impairing the organizability of those compounds designed for nutrition and reproduction. 2nd. By preventing or retarding that vital change—the *conversion of venous blood into arterial*, and diminishing the functional activity of the secreting and excreting structures generally, thus causing a retention and accumulation in the blood of effete and excrementitious compounds. 3d. By retarding capillary circulation and the metamorphosis of the tissues.

7th. That alcoholic stimulants diminish animal heat, and the exhalation of carbonic acid.

8th. That the popular notion that alcoholic stimulants promote healthy digestion and chymification, is not true, and therefore should be discountenanced and discouraged by medical men, not only as failing in this, but as destroying the natural sensibility of the stomach, and inducing morbid irritability and diseased action.

9th. That the stimulation and excitement which naturally fel-

lows the use of these substances, tends to destroy that harmony of action between the different organs and forces of the body, upon which their functional activity, and the continuance and maintenance of health depends. Finally,

"That alcoholic stimulants are the most unfit, and the least calculated of all other expedients, to impart strength and vitality to the human system, or enable it to resist the depressing influences of cold or hunger, fatigue or disease, or any of the various circumstances and events to which it may be exposed."

To sustain his fifth proposition, the author introduces no new experiments, but relies on the general observations of writers concerning the action of tonics. He even omits, in this part of his essay, many interesting and valuable facts bearing upon the subject, which a more extended examination of our medical literature would have disclosed to his view. The general conclusions which he deduces from this part of his task are stated as follows :

1st. That tonics are hæmatic medicines, and as such, are restorative in their influences ; that, unlike *neurotics* and *stimulant*, they have no direct or special action upon nerve matter.

2nd. That they are not foreign to the blood, and may therefore remain in it : that they improve its quality, and the plasticity of its organizable material, assisting digestion and promoting assimilation and nutrition. Hence they are slow, but permanent in their effects

3d. That they exalt the tone of the muscular fibre ; and hence by their use, "the pulse becomes fuller, stronger and regular, and the muscular power increased,"—that they increase the cohesion and density of the tissues—diminish profuse secretions when dependent upon atony and debility, and finally, augment the vital forces of the system in general, thereby restoring *susceptibility* when defective, and the properties and functions of the nervous system to their normal condition.

Our design in noticing this essay, is simply to give the reader such an idea of its general scope and matter as will induce him to procure and read it for himself, rather than to examine it with the pen of a critic. Were we disposed to assume the latter position, however, we should be compelled to question the correctness of some parts of the *fourth* general proposition, already quoted. In it the author asserts that, "their action (alcoholic stimulants) is transitory, *exalting* nervous force." That this class of agents exert a primary influence on the brain, directly increasing nervous exhilaration, excitement or susceptibility, we admit.

But the expression "*exalting nervous force*," plainly implies an increase of nervous energy, power, or strength; which is certainly not one of the effects of alcohol. Under its influence an individual may manifest rapidity of thought, social vivacity, and acuteness of perception, but we seek in vain for, even a temporary increase of true nervous energy or strength. Again the assertion that "they (stimulants) exert a direct and deleterious influence on the component elements of the blood and tissues," though true so far as regards alcohol, is by no means equally so in regard to all stimulants. Thus Gum Camphor, tea and coffee are all stimulants in the sense given to that term by our author. The first is included by him in the list of articles experimented with. But we can discover nothing in the results of his experiments, or in the observations of others which would countenance the idea that they exert any special deleterious influence, either on the elements of the blood or of the organized tissues of the body.

But these errors, (if errors they are), arise more from the want of precision in the use of language than from erroneous ideas in the mind of the author.

The essay, as a whole, is one highly creditable to the author, and well worthy of careful perusal by the profession. There are one or two things, however, in the essay which require explanation. Readers of the Journal will recollect that nearly two years since I commenced publishing in its columns a series of articles on the "Pathology of Fevers." In one of the earlier numbers of this series, I detailed two experiments designed to show the influence of alcoholic drinks on the human system, and especially on the functions of Respiration and Calorification.

These experiments were dated, the first, Oct. 18, 1852, and the second, Nov. 8th, of the same year. They are there introduced as part of a series of experiments "I commenced in the winter of 1850," and they are represented throughout as having been conceived and executed by me.

The reader will readily perceive that the two first experiments detailed in the prize essay are the same as previously published by me. They are introduced by Dr. Parker as though they had been conceived and executed directly under his own supervision,

simply acknowledging in a marginal note that he had been assisted by me. If he had said in the marginal note that they were part of a series which he had witnessed in my office, and which he had been authorized to use, it would have saved the necessity for this explanation. Beside this, however, justice required that he should have made some reference to one or more similar experiments instituted by me in the winter of 1850, and published by me in this Journal during the summer of 1851, after having been read to the American Medical Association, during its meeting in Charleston, S.C. We shall say nothing of the striking similarity between the views presented in the Essay concerning the *elementary properties* and functions of organized matter, and those previously published by me in the articles on the Pathology of Fevers. Indeed, we would have remained silent concerning the experiments also, had it not been for the fact, that they constitute part of a series on which we have bestowed much labor through several years, and which we intend at some future day to communicate to the profession more in detail.

Accompanying the address of Prof. Brainard on Poisoned Wounds, are two lithograph plates which enhance the value of the work, and with the quality of the matter contained, make the present volume of Transactions of our State Society equal in interest and importance to those published by other State organizations.

D.

Transactions of the American Medical Association. Instituted 1847. Vol. vii. New York: C. B. Norton. 1854.

We are happy to announce to our readers the appearance of this volume of the Transactions. During the last few years it has generally reached us about ten months after the date of the annual meeting of the society. We do not wish to be understood as attaching any blame to previous committees of publication, although in many instances it has been two or three months after our eastern exchanges were supplied, before western readers and western journals received it. It may be that our eastern friends received some new ideas in reference to the professional interests of the west at the last meeting in St. Louis.

The volume contains, in addition to the minutes of the Seventh Annual Meeting, the address of Dr. Parsons, Vice-President, the report of the Committee on Medical Education, the report of the Committee on the Epidemics of Kentucky and Tennessee, on Erysipelas, by R. S. Holmes, M.D., of St. Louis; on the Medicinal and Toxicological properties of the Cryptogamic Plants of the United States, by Dr. Proctor, of Charleston, S. C.; Report on the Epidemics of Ohio, Indiana and Michigan, for the years 1852—3; Report on the Epidemics of Louisiana, Arkansas, and Texas in the year 1853; the prize essay on a new method of Treating Ununited Fractures and certain Deformities of the Osseous System, by Dr. D. Brainard, of Chicago; report on the Norwalk Disaster, and the reports of the Committee of Publication, Catalogue of the Officers, and permanent members and index.

We shall give analyses of the most interesting of these papers in future numbers of the Journal. The mechanical execution of the volume is good and does credit both to the committee and the publishers. We advise those of our readers who wish to secure a copy for their libraries to send in their orders soon to Dr. Pliny Earle, New York Chairman of the Committee of Publication.

J.

On the Construction, Organization, and General Arrangement of Hospitals for the Insane. By Thomas S. Kirkbride, M.D., Physician to the Pennsylvania Hospital for the Insane. Philadelphia: Lindsay & Blakiston, 1854.

THE growing interest for the welfare of the Insane manifested by States as well as by individuals, is one of the encouraging signs of the present age. The wants of this unfortunate class of the community are being recognized, while interest and duty alike prompt to measures for their relief. In our own country, institutions are springing up in almost every State, where their physical wants are judiciously cared for, and their mental maladies properly treated. Dr. Kirkbride, in the little work before us, has made some valuable suggestions as to the style of architecture and internal arrangements best suited for the gratification of the taste and the accommodation of the Insane.

We commend the work to the careful perusal of all those inte-

rested in the erection or management of hospitals for this class of the community. J.

Registration of Births, Marriages and Deaths in Rhode Island, for the year ending May 31st, 1853. Prepared under the direction of ASA POTTER, Secretary of State.

The above is a pamphlet of 188 pages, containing the first annual registration report for the State of Rhode Island.

The work of compiling the report was chiefly done by Thomas H. Webb, M. D., of Providence, who seems to have performed his task with much patience and care.

Forty pages are occupied with statistical tables giving the number of Births, Marriages and Deaths in each county with their population as determined by the census. These tables embrace a great amount of very useful matter. The remaining 148 pages are occupied with an interesting history of the progress of legislation, and a detailed analysis of the facts furnished in the statistical tables.

Dr. Webb has evidently bestowed on the report much labor, and has thereby made it correspondingly interesting and valuable to the whole profession. We hope the time will soon come when every State in the Union will have, not only a good registry law, but one well executed.

Congestion of the brain in cholera, by James M. Newman, M. D., Buffalo, N. Y.

Galt on Insanity.

Elkoplasty or Anaplasty applied to the treatment of old ulcers; also a new mode of treatment for delayed or non-union of a fractured humerus, by Frank H. Hamilton, A. M., M. D., Professor of Surgery, &c., &c.

Resume de Recherches cliniques sur la fièvre continue, la dysenterie, la pleurésie chronique, et sur les variations du ton dans les sons fournis par la percussion, et par l'auscultation, par Austin Flint, M. D., Professeur de Médecine, théorique et pratique à l'Université de Louisville, état de Kentucky, État Unis d'Amerique. Paris. 1854.

Proceedings of the American Pharmaceutical Association, at the third annual meeting held in Cincinnati, July 25th and 26th, 1854. Published by direction of the Association.

Eighth Annual Report of the Board of Regents of the Smithsonian Institution.

Dr. Newman enumerates the following as the premonitory and positive symptoms of congestion of the brain in cholera :

There is a class of cases in which there never occurs the pallid, sunken countenance generally seen in cholera, and so characteristic of the disease. If reaction is established, the bright, if not ruddy complexion of the patient seems to belie the assertion that but a few hours before they were at the very mouth of the grave.

This redness of the face is attended by several peculiarities. In some cases it presents the appearance of a bright blush diffusing itself over the whole cheek. In others it is a deeper red, and not so largely diffused ; the color toward the center of the patch becoming more and more intense, a bright circumscribed spot is manifest upon a field of less intensity. The small cutaneous vessels are minutely injected, and the general appearance is not unlike that caused by the immoderate use of alcoholic stimulants, or frequent and long exposure to the sun.

This redness of the skin, depending upon the injection of the vessels, is very persistent. It remains during the whole period of treatment, and long after convalescence. It seems as if it required to be removed by some process of reparation.

The eyes are more or less injected. The intensity of this injection is very various, and is increased with the the persistency of the case, and its tendency to a fatal termination. The conjunctivæ in some cases are injected in their lower halves only, that portion covered by the upper lids remaining singularly clear.

If convalescence be not speedily established, the vomiting and purging continue, or, if for a time checked return again. Drinks, medicines, and nourishments are all alike rejected by the stomach ; and the matters thrown up cease to be a mere colorless liquid, but are more or less tinged, generally being yellow, sometimes greenish.

The discharges from the bowels are frequent and assume in a greater or less degree the consistency, odor and appearance of ordinary diarrhœa. The discharges sometimes are very offensive. This condition is not always observable, the evacuations occasionally continuing throughout the disease rice-water. But I believe this is more generally observable in cases of a rapid termination, and in cases where a relapse has been sudden from a condition of

comparative convalescence, and partakes of the character of a second attack of cholera.

As the vomiting and diarrhoea continue, the strength wanes; the color of the face deepens, or extends in surface; the eyes are more and more injected: the patient becomes drowsy and inclined to sleep; the stupor gradually increases, and finally profound coma becomes established, terminating in death, or recovery after long treatment and a tedious convalescence.

The condition just described is Congestion of the Brain in the course of Cholera.

The flushed face, and injected eye, are the premonitory symptoms of and the indications pointing out the tendency of the disease to such a termination, and warn us against any treatment which may precipitately hurry it on, and conduce to hasten our patients to the grave.

I would solicit for the consideration of these conditions of the face and eye, more than a casual notice. I have come to regard them as valuable diagnostic signs; and as they occur earlier in the disease, look upon them as affording us an unerring index to our course of treatment. With these marks upon our patients we have Congestion of the Brain, in some form or other, to contend with. And fortunate indeed shall we be if our patient prove to be lightly affected, or our medication wards off the impending evil.

The author regards the vomiting and purging at this stage of the disease as choleraic only in their character and indications, the vomiting depending on irritation of the brain from congestion, while the diarrhoea is due partly to the same cause, and partly to the exudation of the serum of the blood through the coats of the intestines, in consequence of a change of vital action or lesion of structure in their membranes. Although the writer regards this as a stage of cholera, yet he says that in the treatment "we are here to cease to regard and to treat the disease as cholera merely but we are to merge this consideration into a knowledge of the fact that we have a brain affection to treat sufficiently serious to destroy our patient." Grant this fact, but what is this brain affection? Dr Newman thinks it may be simple congestion or a state of inflammation co-existing with congestion. It has been supposed by others that it is dependent on retained excretable materials, especially urea, acting as a positive poison to the nervous system. It has seemed to us from many observations that it is simply a local manifestation of the *grand mal*, and that to under-

stand it we have only to trace the changes that take place in the fluids and solids of the body from the first invasion of the disease.

The premonitory diarrhoea, as it has been called, we consider one stage of cholera. During this period the water of the blood is rapidly passing into the alimentary tube; the specific gravity of the liquor sanguinis in the blood vessels is increased; and by the law of exosmosis, the contents of the corpuscles pass through their walls, leaving them in a corrugated condition. As the disease progresses, first the inorganic, second the organic solids pass into the intestinal canal, the blood corpuscles become still more collapsed, from the viscid condition of the blood. they circulate but slowly, and their function as the carriers of oxygen is performed with constantly increasing difficulty.

We believe it is admitted by physiologists of the present day that the functional activity of parts is dependent on the molecular changes in their ultimate organic elements, and that these changes are effected mainly by the agency of oxygen. If this be so, we can understand how a series of morbid changes in the fluids and solids of the blood may affect the different extra-vascular structures. The old worn-out particle is not removed, the new material is not supplied, the process of secondary assimilation is entirely arrested, with a consequent loss of function, not of one organ only but of the whole system. The arrest of the circulation or the congestion seems therefore to be dependent on two causes: first, the viscosity of the blood, from a loss of water; secondly and chiefly, in the loss of the force existing in the capillaries and in the arterial walls. It is general in its character, manifesting itself, first through those organs most sensitive to injury, and in their derangements affecting most seriously the vitality of the organism. The therapeutical indications are to restore to the blood its normal conditions, and to excite the secretions by introducing into the system those substances known to possess an influence over them.

The first of these indications may be fulfilled by allowing or requiring, if need be, that the patient drink largely of weak solutions of the neutral salts of soda and potassa, while at the same time beef tea or the essence of beef is administered in as liberal

quantities as the stomach will retain, thus supplying those constituents that have been drained during the active stage of the disease. For meeting the second indication, we may use in addition to the salines above mentioned, mercurials, the measure of their quantity being the effect produced. The experience of the profession we believe, has furnished quite unanimous testimony to their good effects in this stage of the disease, but whether they act as revulsives as Dr. Newman thinks, and thus relieve the congestion which he seems to suppose is confined to the brain, or whether they serve as excitants of the organic actions generally, as we think more probable, it is perhaps difficult to say.

The essay of Dr. Galt is from the *American Journal of Insanity*. It contains much that is interesting, not only to those who are more immediately charged with the care of the Insane, but also to the general medical reader.

Dr. Hamilton proposes to cure indolent ulcers, where there is a loss of integuments, by grafting from remote parts healthy tissues. The following is his summary :

1st.—Ulcers, accompanied with extensive loss of integument, do generally refuse to heal, whatever may be the health of the body or of the limb.

2d.—Anaplasty will sometimes succeed in accomplishing a permanent cure, and especially where the health of the body and of the limb are perfect, and where, by inference, the refusal to heal is alone attributable to the extent of the integumentary loss.

3d.—The graft must be brought from a part quite remote; generally from an opposite limb, or from another person.

4th.—If smaller than the chasm which it is intended to fill, the graft will grow, or project from itself new skin to supply the deficiency.

5th.—It is not improbable that the graft will expand during the process of cicatrization at its margins, but especially for a time after the cicatrization is consummated.

6th.—In consequence of one or both of these two latter circumstances, it will not be necessary to make the graft so large as the deficiency it is intended to supply.

Dr. H. proposes to treat ununited fractures of the humerus by first straightening the arm. A case is reported in which this course was pursued and the ends of the bones perforated, as recommended by Dr. Brainard in similar cases. Union was established in less than forty days.

Dr. Flint, in his resume, has given the essential points of his work on continued fever, dysentery, chronic pleurisy, and his prize essay on the variations of the pitch in the sounds furnished by auscultation and percussion, published in French during his recent visit to Paris. The works have been noticed in our journal, and we have nothing more to say in reference to them.

We have not space in the present number to do more than acknowledge the receipt of the remaining works.

We have received catalogues of medical and surgical works, by Blanchard & Lea, Philadelphia; and the Messrs. Wood of New York. Also, the Eighteenth Annual Report of the Directors and Superintendent of the Vermont Asylum for the Insane. J.

The Voluntary System of Medical Education Instituted by the Independent Medical School of Pennsylvania. Chartered May 8th, 1854: King & Baird, Printers, Philadelphia.

THE above is the title of a pamphlet of 20 pages, containing some just criticisms on the present system of Medical Education, and explaining the nature and objects of what is styled the "Independent Medical School of Pennsylvania."

The proposed organization is not to be a school for giving instruction or lectures, but solely for the purpose of securing an independent board of examiners before whom the candidate for Medical honors can present himself and receive a thorough examination without reference to the place where he may have pursued his studies or attended on lectures. We infer from the pamphlet that a charter has been obtained granting all the powers necessary for carrying into effect such an institution.

An attempt of a similar character was made in Philadelphia, so early as the year 1837; and was then advocated by a very large proportion of the profession in that city. But the legislature then refused to grant them the necessary charter. (See *Eclectic Journal, Med. vol. 1. p. 80.*) We hope the present effort will meet with better success; for we hail every movement that tends to sever the present connection between the business of *teaching* medicine and granting diplomas which serve as licenses to practice.

We have long contended that the several medical schools of our country could never be thrown fully upon their actual merits, as institutions of learning and sound instruction, so long as the privilege of conferring degrees placed the most insignificant school on the same level, in this respect, with the most renowned. But the establishment of ever so many *Independent Boards of Examination* will not remedy some of the most prominent objections to the present system of medical education. Take, for instance, the objection stated very clearly in the following paragraph from the pamphlet before us :

“ Out of the customary limitation to a *duplicated session* of four or five months, (the two sessions that make up the term of public instruction, are in fact, but copies and representations of each other,) *there grows an unavoidable confusion of study*—a mixture without order, relation, or natural sequence and dependency. Anatomy, for instance, which certainly ought to have some fixed place in the programme of tuition, corresponding to its natural order in study, is taught in a tangled coil of surgery, physiology, therapeutics, and obstetrics ! The surgeon begins, perhaps, with inflammation, and the chair of practice opens on fevers, while the anatomist is still lecturing on the *bones*. And amputations, the action of remedies upon the vascular and nervous systems, and the mechanism of parturition; are under discussion in their several chairs, before the anatomist has reached a muscle, artery or nerve, involved in the prelections of his fellow-professors ! ”

This crowding of the whole field of Medical Science upon the mind of the student without method or natural order, during a limited session of college instruction, has long been felt as a radical fault. But the remedy proposed both in the pamphlet and elsewhere, which consists in *simply lengthening the college terms*, is wholly futile and inadequate. Here was the great error of the American Medical Association. Its members saw clearly the absurdity of crowding the field of medical study into the brief period of four months, and hence one of their first acts was to recommend the addition of *two months* to the college term. But in doing this they left the same confusion, the same daily crowding of di-

verse branches upon the mind, regardless of their natural sequence, as before. Consequently it only subjected the student to a more protracted endurance of the same difficulties as in the short sessions; and the recommendation proved an entire failure. If the Association had, with the same unanimity, recommended the annual college session to be extended to *nine* months, instead of six; and then subdivided it into *terms* of three months each, with a division of the science of medicine into *twelve* departments—four of which should be taught in each of the *terms* of the college session; they might have so grouped the several departments or branches that all students during the first year of study should attend one term of *four* branches, presented in four lectures a day for three months, thereby giving ample time for practical dissections and study—those in the second year of study should attend another term of *four* branches, three months, during which they should still dissect and also attend hospital for the special purpose of studying Pathology—and those in the third and last year of pupillage, having now laid a good foundation should attend the *third* term of the college session, which should embrace the great remedial or directly practical branches with clinical instruction both for its Pathology and Therapeutics.

This would place the several departments of medical study in something like their natural order of sequence and dependence, and would secure a most desirable degree of method and thoroughness in our system of medical education, without any increased tax on the student's time or pecuniary resources. If such a system of college instruction was adopted together with the establishment of independent boards of censors for conferring degrees, it would soon place every college entirely on its merits and resources for instruction, and give to college competition a widely different tendency, in some respects, from what it has possessed during the last half century. In the meantime we would commend to the attention of the friends of the "Voluntary System," in Pennsylvania, the concluding chapter of a little (and much abused work) we published a few years since "On Medical Education." D.

EDITORIAL.

To Members of the Illinois State Medical Society :

THE volume of the Transactions of this Society for 1854 has been published and mailed to all who have paid the annual assessment of Two Dollars. The names of all such are published in the list at the end of the volume.

But there are many who have been and are still included as *members* of the Society who have not paid their assessment, and the amount of money received into the treasury is not yet sufficient to pay the expenses of publication. It will be seen from the notice of the volume of Transactions in this number of the journal, that it contains some matter of permanent value.

Will not all those whose names have been enrolled on the list of members of the Society, who have not already done so, forward without delay their names with the annual assessment, and thereby furnish themselves with the Transactions, and the treasury with funds. It will save time and trouble if all applications for copies are addressed directly to N. S. Davis, Treasurer of the Society, Chicago, Ill. D.

THE next number, which is the last of the present volume, will contain a leading article on a form of *Jaundice*, which was quite prevalent during the middle part of the last winter, and cases of which are again becoming frequent. With the commencement of the new volume, we shall resume the series of Articles on the Pathology of Fevers, which was commenced in volume ii., and continue them until they embrace a full exposition of our views of the *causes* and *treatment* of this large and important class of diseases.

In the meantime we hope our friends will not withhold their contributions to our columns.